# Fairfax County Community-wide Energy and Climate Action Plan (CECAP)

Public Feedback Session

Thursday, May 20, 2021 7:00 PM – 8:30 PM

Held Electronically via WebEx

## Welcome & Meeting Overview

Candace Blair Cronin, Ph.D., ICF Facilitator



#### **Welcome and Meeting Overview**

**CECAP Process** 

**Section by Section Review & Discussion** 

Greenhouse Gas Inventory & Projections

Greenhouse Gas Reduction Model

**Greenhouse Gas Reduction Goals** 

**Emission Reduction Strategies** 

**Open Discussion on What You Want to Know Next?** 

Wrap Up and Next Steps

Agenda

#### Meeting Purpose

- Educate and inform you about the Community-Wide Energy and Climate Action Plan (CECAP).
- **Understand** your opinions and ideas on the products of the CECAP planning process.
- **Gather** your ideas to inform our Fall 2021 educational campaign and next steps.

#### Getting to Know You

- How did you hear about this meeting?
  - o Facebook, YouTube, Twitter, NextDoor, Email (e.g., email from Fairfax County or from another organization), someone told me about it
- To what extent are you personally concerned about climate change?
  - Very concerned, slightly concerned, not concerned
- How familiar are you with the CECAP process?
  - Very familiar, somewhat familiar, not familiar at all
- Where do you live within the County?
  - o Braddock, Lee, Springfield, Sully, Providence, Mount Vernon, Hunter Mill, Mason, or Dranesville
- In the future, how would you prefer to hear about CECAP?
  - o Facebook, YouTube, Twitter, NextDoor, email, posters, flyers, etc.

#### CECAP Process Overview

Maya Dhavale, Fairfax County



#### **CECAP Process**

Project Initiation

January 2020

Climate Mitigation Planning & Support December 2020 - March 2021

Develop Final CECAP Technical Report January 2021 - July 2021







**GHG Reduction** Inventories, Models and Goals March 2020 -May 2021



Education/ Outreach & Implementation Starting in Fall 2021

#### Community Engagement & Public Input

#### **Public**

- Input and implementation roles
- Online access
- Outreach
- Public feedback meetings
- Public surveys

#### **CECAP Working Group**

- Decision-making role
- Recommends Plan to Board of Supervisors
- County-wide representation
- Meetings open to the public

#### **CECAP Planning Process**

Project

January 2020

Initiation

Public Feedback **Sessions & Surveys** 

August 2020

Public Feedback Sessions

May 2021

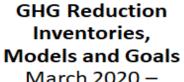
Climate Mitigation Planning & Support December

2020 - March 2021

Develop Final CECAP Technical Report January

2021 - July

2021



March 2020 -May 2021

Community Engagement **Planning** 

August 2020 -Ongoing

> Public Feedback Sessions & Surveys

> > February 2021

Education/ Outreach & Implementation

Starting in Fall 2021

#### Greenhouse Gas Emissions Inventory & Projections

Adam Agalloco - ICF Candace Blair Cronin, Ph.D. — ICF Facilitator



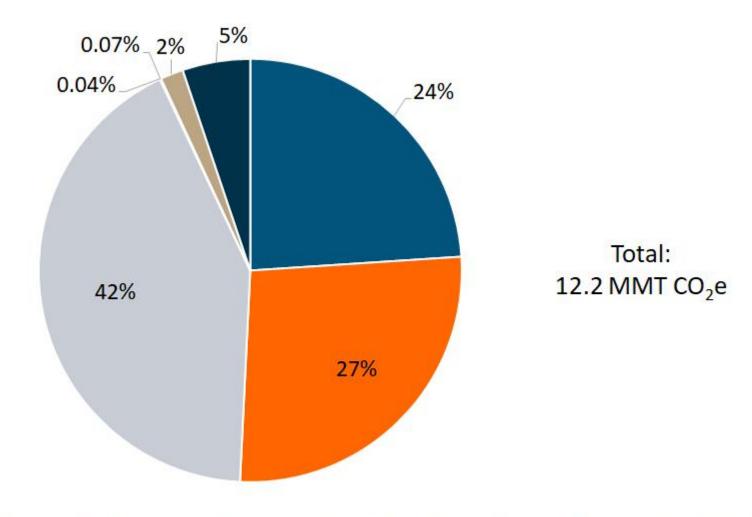
#### **Key Terms**

- Greenhouse Gas (GHG): A gas that traps heat in the atmosphere, such as carbon dioxide or methane.\*
- **GHG Inventory:** GHG inventories provide an accounting of greenhouse gas emissions from man-made sources within a specified boundary (for example, within Fairfax County).
- **Sectors:** Sources of greenhouse gas emissions are categorized by economic sector. Major sectors include transportation, electricity, industry, commercial/residential, and agriculture.

Visit the OEEC webpage All About Climate Change for more information.

<sup>\*</sup>EPA GHG Overview

#### Fairfax County 2018 GHG Inventory Sector Shares

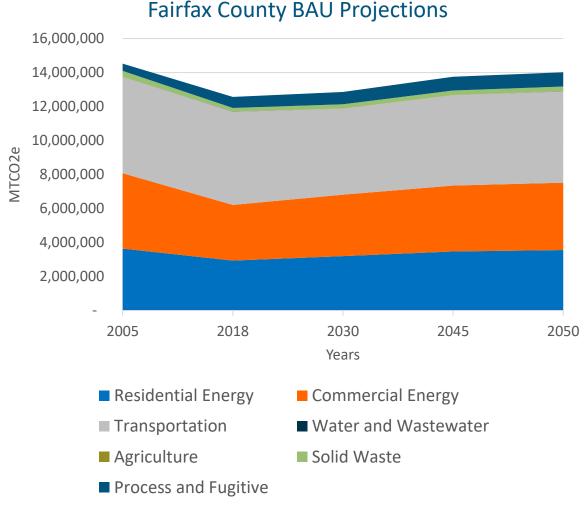


■ Residential Energy ■ Commercial Energy ■ Transport ■ Water Treatment ■ Agriculture ■ Waste ■ Process & Fugitive Emissions



### Fairfax County Business as Usual (BAU) Community Emissions

- Increase by 2% from 2018-2030
  - Associated with a decrease in on-road transportation emissions
- Increase by 11.5% from 2018-2050 (9% from 2030-2050)
  - Associated with economic growth, increased VMT, and greater aviation emissions



#### Greenhouse Gas Reduction Model

Adam Agalloco - ICF



#### **Key Terms for CECAP**

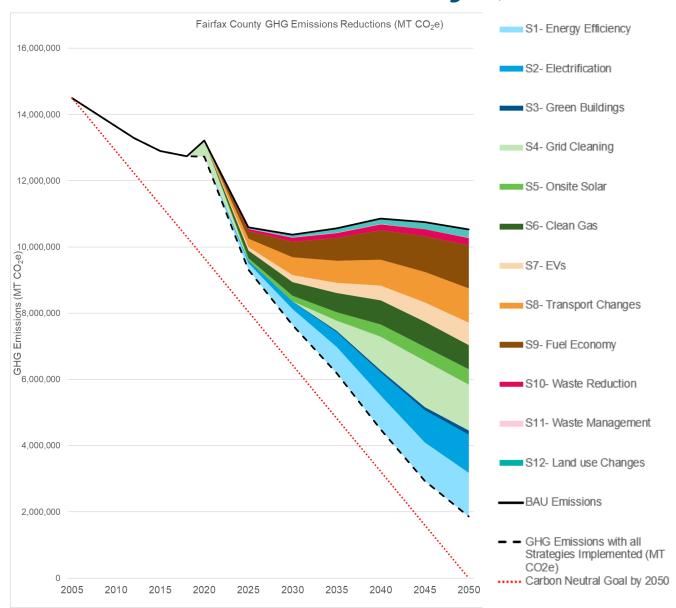
**Sector:** An area of emissions focus or an economic sector which generates carbon emissions from its energy use or economic activity.

 Examples of sectors include buildings, renewable energy, energy efficiency, transportation, and waste.

**Strategy:** A broader set of actions or set of sub-sector work that can be modeled to understand emissions reductions.

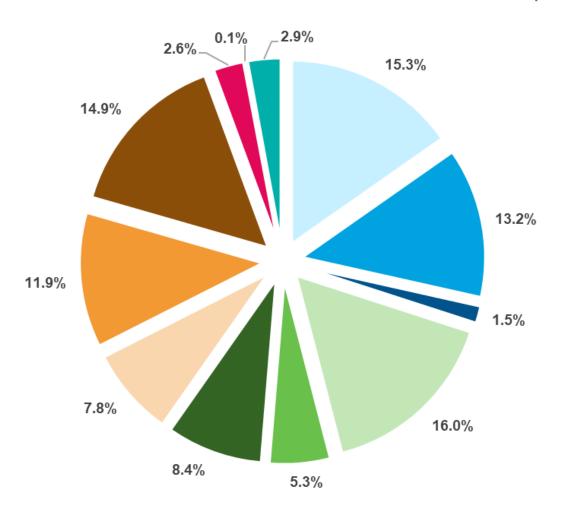
**Action:** A project or specific technology that impacts greenhouse gas emissions within a strategy or sector.

#### GHG Reduction Pathway (2005-2050)



#### GHG Reductions by Strategy by 2050 (% by 2050)

Reductions compared to BAU by Percentage 2050



- S1- Energy Efficiency
- S2- Electrification
- S3- Green Buildings
- S4- Grid Cleaning
- S5- Onsite Solar
- S6- Clean Gas
- S7- EVs
- S8- Transport Changes
- S9- Fuel Economy
- S10- Waste Reduction
- S11- Waste Management
- S12- Land Use Changes

#### Greenhouse Gas Emissions Reduction Goals

Adam Agalloco - ICF Candace Blair Cronin, Ph.D. — ICF Facilitator



#### Terms for Goal Setting

- Long term goal: The emission reduction levels that a government or organization sets out to achieve by a specified time, or target year.\*
- Interim goal: A goal that provides a progress point for the long term goal and works to create accountability within the plan.
- Sector-specific goal: A goal set for sector-specific metrics that would contribute to the overall goal of reducing emissions and/or energy use.

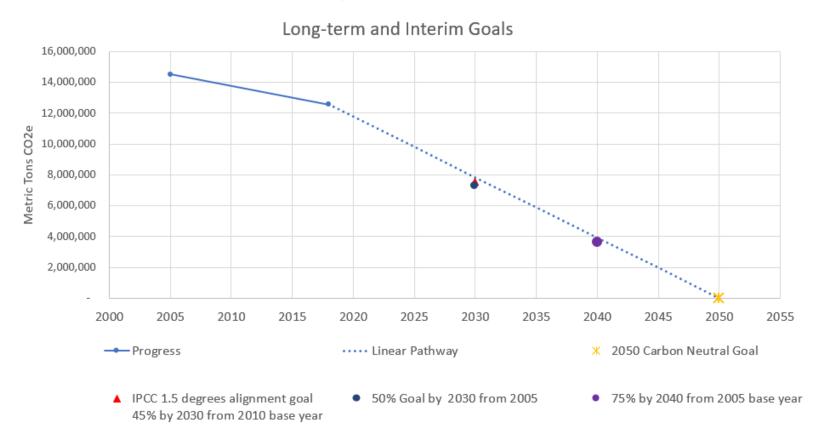
<sup>\*</sup>C2ES US State GHG Emissions Targets

#### Long-Term and Interim Goals

2030 Interim goal: 50% reduction by 2030 from a 2005 base year.

2040 Interim goal: 75% reduction by 2040 from a 2005 base year.

**2050 Long-term goal**: Carbon neutrality by 2050, with at least 87% achieved with emission reductions from a 2005 base year.



#### Sector-Based Goals

- Buildings & Energy Efficiency: All new, eligible buildings will have a commitment to green building
- Buildings & Energy Efficiency: Retrofit at least 100,000 housing units with energy efficiency measures by 2030
- Transportation: Increase transit and non-motorized commuting to 30% (including telework) by 2030
- Transportation: Increase plug-in electric vehicles (PHEVs) and battery electric vehicles (BEVs) to at least 9% of all light-duty vehicle registrations by 2030
- Natural Resources: Goal is currently under discussion. The current draft goal is focused on tree canopy.

#### CECAP Strategies

Adam Agalloco - ICF Candace Blair Cronin, Ph.D. — ICF Facilitator





Buildings and Energy Efficiency

- Strategy #1: Increase energy efficiency and conservation in existing buildings.
- Strategy #2: Pursue beneficial electrification in existing buildings.
- Strategy #3: Implement green building standards for new buildings.







#### **Energy Supply**

- Strategy #4: Increase renewable energy in grid
- Strategy #5: Increase production of onsite renewable energy
- Strategy #6: Increase energy supply from renewable natural gas (RNG), hydrogen, and power-to-gas







#### Transportation

- Strategy #7: Increase electric vehicle (EV) adoption
- Strategy #8: Support efficient land use, active transportation, public transportation and transportation demand management (TDM) to reduce vehicle miles traveled
- Strategy #9: Increase fuel economy and use of low carbon fuels for transportation





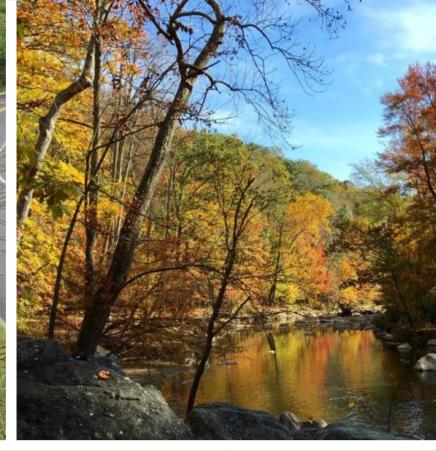


#### Waste

- Strategy #10: Reduce the amount of waste generated and divert waste from landfills and waste to energy facilities.
- Strategy #11: Responsibly manage all waste generated including collected residential and commercial waste, wastewater, and other items.







Natural Resources • Strategy #12: Support preservation, restoration, and expansion of Fairfax County's natural systems and green spaces

# What Do You Want to Know More About Next?

Candace Blair Cronin, Ph.D., ICF Facilitator



#### Tell Us What You Want to Know

- What is something new you learned today that your neighbors don't know?
- What would you like to learn more about as we begin implementing CECAP?
- What resources would be helpful?
- What are the best ways for us to share information with the community?

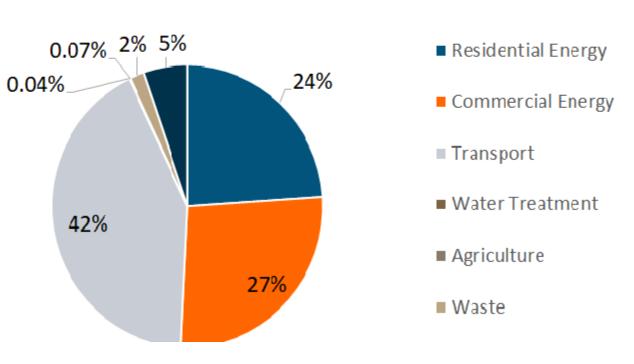
### Wrap Up and Next Steps

Candace Blair Cronin, Ph.D., ICF Facilitator Maya Dhavale, Fairfax County



#### Let's Hear From You

- 1. What is the highest emitting sector, based on Fairfax County's latest greenhouse gas inventory?
  - A. Agriculture
  - B. Commercial Energy
  - C. Process & Fugitive Emissions 0.04%
  - D. Residential Energy
  - E. Transport
  - F. Waste
  - G. Water Treatment



#### Tell Us More

#### 2. What strategy are you most excited about?

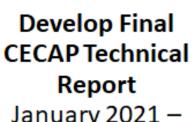
- S1: Increase **energy efficiency** and conservation in existing buildings
- S2: Pursue **beneficial electrification** in existing buildings
- S3: Implement **green building standards** for new buildings
- S4: Increase **renewable energy** in **grid** mix
- S5: Increase production of **onsite renewable energy**
- S6: Increase energy supply from renewable natural gas (RNG), hydrogen, and power-to-gas

- S7: Increase **electric vehicle (EV)** adoption
- S8: Support efficient land use, active transportation, public transportation, and transportation demand management (TDM) to reduce vehicle miles traveled
- S9: Increase **fuel economy** and **use of low carbon fuels** for transportation
- S10: Reduce the amount of waste generated and divert waste from landfills and waste-to-energy facilities
- S11: **Responsibly manage waste** generated including collected residential and commercial waste, wastewater and other items
- S12: Support preservation, restoration, and expansion of Fairfax County's natural systems and public spaces

#### Next Steps

Community
Engagement
Planning
August 2020 Ongoing

Fall Educational Campaign



January 2021 – July 2021 Implementation

#### Get Involved

- Review the report when it goes to the Board in July.
- Look out for the Fall 2021 educational campaign.
- <u>Email</u> to become a CECAP Community Partner. Help advocate for and enact changes in your community that will lower our collective greenhouse gas emissions.
- **Follow or Like** the <u>Fairfax County Climate and Energy Facebook</u> page, and join the online conversation.
- Spread the word!

#### Stay in Touch & Spread the Word

**CECAP Homepage** 

Office of Environmental & Energy
Coordination (OEEC) Climate Action
News Blog

Twitter: @ffxgreen / #ffxCECAP

Follow for updates on the CECAP process, as well as information on climate and energy science, policy, and best practices.

**Learn** about the topics and trends driving the climate conversation in Fairfax County.

#### Thank You!

For further questions, please contact:

Maya Dhavale

Fairfax County

Office of Environmental and Energy Coordination

12000 Government Center Parkway Suite 533 Fairfax, VA 22035

703-324-7165 (W), 571-373-1758 (C) <u>CECAP email</u>

**CECAP** website